DoD Software Information Clearinghouse

Products and Services Catalog

DoD Data & Analysis Center for Software

http://www.dacs.dtic.mil

(800) 214-7921

The DACS is a Department of Defense (DoD) Information Analysis Center (IAC) sponsored by the Defense Information Systems Agency (DISA), with supervision provided by Defense Technical Information Center (DTIC).

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DACS Products and Services Overview

About the DACS

The Data & Analysis Center for Software (DACS) is a Department of Defense (DoD) Information Analysis Center (IAC). The DACS is sponsored by the Defense Information Systems Agency (DISA),and administratively managed by the Defense Technical Information Center (DTIC) under the DoD IAC Program. The DACS is technically managed by Air Force Research Laboratory, Information Directorate (AFRL/IF). The DACS is managed and operated by ITT Industries, Systems Division. The DACS is the DoD Software Information Clearinghouse, serving as an authoritative source for state-of-the-art software information and providing technical support to the software community. To fulfill this role, the DACS provides products and services that will help solve your software engineering problems and needs.

Products - DACS provides products that reflect the changing needs and interests of the DACS user community. Our products include: empirical datasets; state-of-the-art reports; software engineering bibliographies; catalogs and directories; critical reviews and technology assessments reports; and the quarterly DACS newsletter, the *DoD Software Tech News*.

Services - The DACS software engineers are available to answer your questions and to discuss your technical problems. In addition, we can provide custom database searches and detailed technical assistance for special studies. The DACS also offers technical courses on a variety of subjects that can be held on-site if desired.

DACS Information Package:

A package of information containing this DACS Products & Services Catalog, two recent *Software Tech News* newsletters, the Technical Area Task brochure and several other DACS Services Brochures to familiarize customers with what the DACS capabilities. This information package is sent FREE to U.S. residents.

What's in the DACS Information Package?

DACS Brochures

- Databases & Empirical Datasets
- Intranets
- Software Management
- Software Measurement
- Software Process Improvement (SPI)
- Software Testing
- Acquiring Technical Support from the DACS, [Technical Area Tasks (TATs) or Special Studies]
- Technical Reports
- Year 2000
- DACS World Wide Website

DACS Products & Services Catalog

This is the catalog you are currently reading. This document's purpose is to provide descriptions of the DACS products and services while also providing ordering guidelines and prices.

This catalog is available as part of the DACS Information Package or it may be received separately for customers who are already familiar with the DACS.

All DACS products may also be ordered on-line at: www.dacs.dtic.mil/forms/orderform.shtml

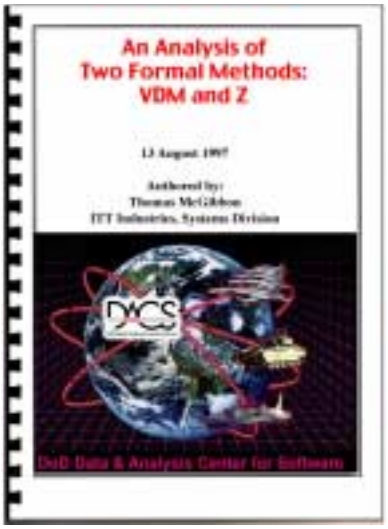
DoD Software Tech News

We use our newsletter to implement the current awareness program. The *DoD Software Tech News* newsletter consists of the latest and most significant developments in software technology and software engineering, and informs you of current DACS products to help with your software engineering questions. Learn more about the *DoD Software Tech News* on page 5 of this catalog.

DACS Documents

DACS Technical Reports

A Business Case for Software Process Improvement (SPI) (Revised) , Measuring Return on Investment (ROI) from Software Engineering and Management- This State-of-the-Art-Report (SOAR) takes a second look at the popular 1996 report, investigating the details necessary to rationalize, from a business perspective, investing in and performing software process improvement. (4/99) **$50 This report includes a spreadsheet to calculate Return-on-Investment.**



An Analysis of Two Formal Methods: VDM and Z - This report compares and contrasts the strengths and weaknesses of the Vienna Development Method (VDM) and Z in the software design lifecycle phase, and compares and contrasts VDM and Z to other formal models. (8/97) **$25**

An Overview of Object Oriented Design - This report describes a broad range of OODBMS evaluation criteria. It then evaluates five commercial OODBMS products in a subset of the overall criteria, focusing on issues relevant to applications development and advanced object-oriented database concepts (e.g., versioning, schema evolution). (9/93) **$25**

A Review of Formal Methods - This report overviews the technical basis for formal methods. Specification methods and two methods of formally verifying that an implementation satisfies a specification are summarized. (5/93) **$25**

A History of Software Measurement at Rome Laboratory - This document describes software measurement activities conducted by Rome Laboratory (RL) from the early seventies to 1993. (7/93) **$25**

A Review of Non-Ada to Ada Conversion - This report provides a discussion of the processes and problems involved with the conversion of software from early High Order Languages (HOLs) to Ada. (8/93) **$25**

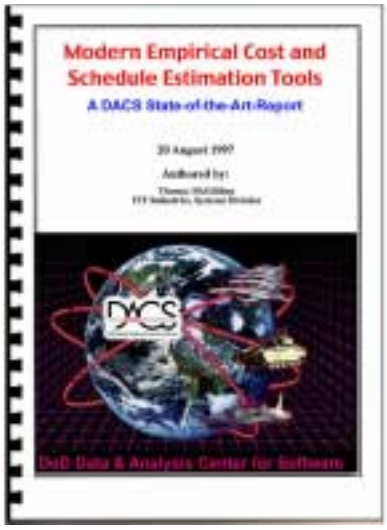
Artificial Neural Networks Technology - Describes what artificial neural networks are, how to use them, and where they are currently being applied. (8/92) **$25**

Electronic Publishing on the World Wide Web: An Engineering Approach - A DACS Technical Handbook that provides guidelines to information providers for disseminating information through the World Wide Web. (3/95) **$5 -SALE ITEM-**

Software Design Methods - This report provides readers with a useful snapshot of software design technology that can be used as a tutorial for the uninitiated, a starting point for detailed research, or a guide for those who will be developing software in the future. (3/95) **$25**

Software Analysis and Test Technologies - Examines current software analysis and test technology, and needs that should be filled by future technology. (2/92) **$25**

Software Engineering Baselines - The purpose of this report is to provide baseline information about a selected set of metrics, specifically productivity, complexity, and reliability. (7/96) **$25**



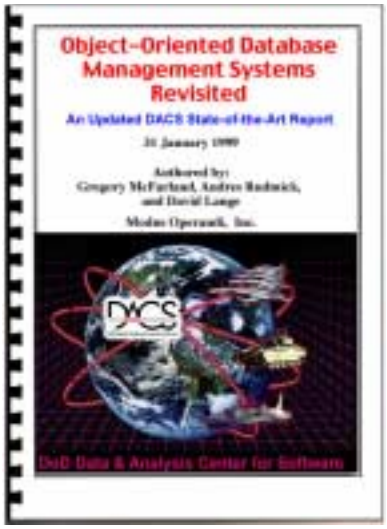
Modern Empirical Cost and Schedule Estimation Tools - The purpose of this paper is to identify, discuss, compare and contrast software cost estimating models and tools that address modern philosophies. (8/97) **$25**

DACS Technical Reports continued

Software Interoperability - This report summarizes the significant issues and terminology used in the field of software interoperability The report concludes with a new view of interoperability and a novel way of addressing it. (10/96) **$25**

Software Reusability - This report describes important reusability projects around the world, Ada repositories in the U. S., and problem areas that hinder reusability from being common practice. (8/90) **$25**

Software Prototyping and Requirements Engineering - Describes the motivation for software prototyping in general and specifically in requirements engineering. Summary analyses of four software requirements and specification techniques and prototyping tools covering 20 techniques and tools. (6/92) **$25**



Object-Oriented Database Management Systems Revisited - The report updates a previous DACS SOAR which provides an understanding of the issues relevant to OODBMS technology and describes where commercial products stand on these issues. (1/99) **$50**

Understanding and Improving Technology Transfer in Software Engineering - This report summarizes the history of software engineering technology transfer and suggests ways to help us understand how to shorten the time between innovation and effective practice It also discusses the process of creating, evaluating, packaging and diffusing technology Areas that are ripe for further investigation are also discussed. (11/98) **$50**

Using Defect Tracking and Analysis to Improve Software Quality - This report discusses five defect categorization and analysis efforts focusing on one of three goals: finding the nature of defects, finding the location of defects, and finding when the defects are inserted, with the intent of using this information to characterize or analyze the environment or a specific development process. Two surveys from 30 companies, covering their defect classification and analysis practices are also included. (11/98) $50

Many of these reports are available for viewing/downloading FREE on the DACS Website at: www.dacs.dtic.mil/techs/tr.shtml

A printed/bound copy of these technical reports may be ordered using the form at the back of this catalog or on-line at: www.dacs.dtic.mil/forms/orderform.shtml
(The price for each report is listed in the report's description)

Documents continued

Bibliographies

DACS Annotated Bibliographies - Each is a bibliography of software engineering literature contained in the DACS Software Engineering Bibliographic Database (SEBD). The Bibliography includes citations and abstracts, a keyword index built from the DACS Software Engineering Thesaurus, a subject index, an author index, and a Keyword-in-Context (KWIC) index. Volumes are available individually or in groups from 1980 through 1996. See the DACS Order Calculation Form on page 14 for further information.

Rome Laboratory Research in Software Measurement - This bibliography contains citations and abstracts for 102 documents, the result of a search of the DACS Software Engineering Bibliographic Database (SEBD) for documents produced under sponsorship of Rome Laboratory (formerly Rome Air Development Center) in the software measurement area. The SEBD is composed of texts, technical reports, theses, journal articles, proceedings, and other documents relating to all aspects of software engineering. (11/93)

Conference Proceedings

Knowledge-Based Software Assistant/Environment. The Knowledge-Based Software Environment (KBSE), formerly the Knowledge-Based Software Assistant (KBSA), is a tool for software development and maintenance intended to support a transformational lifecycle paradigm. The KBSE uses Artificial Intelligence techniques and guidance to automatically transform formal requirements to designs and code, with maintenance being performed on the formal requirements. Since 1986, Rome Laboratory has sponsored a conference to provide technical interchange between researchers and developers in the KBSE community. Annual proceedings from these conferences are available through the DACS for 1986 through 1996.

Software Quality Workshop. Over the last several years, Rome Laboratory sponsored an annual workshop on software quality. Attendees and presenters have discussed all aspects of software quality and software quality measurement. Proceedings are available from the DACS for the first four annual workshops, from 1989 to 1992.

DoD *Software Tech News* newsletter

The *Software Tech News* newsletter provides general awareness of significant trends, developments, and technical activities in the software engineering and software technology fields. The quarterly *Software Tech News* newsletter is mailed to U.S. residents free of charge.

Each newsletter focuses on a specific topic of interest to the Software Technology community. These topics and a listing of the articles in each newsletter are shown in this catalog. Past newsletters may be viewed FREE of charge on the DACS Website at: www.dacs.dtic.mil/awareness/newsletters/listing.shtml.

STN vol. 3 no. 1: Collaborative Techniques

- Win Win: A System for Negotiating Requirements
- WebMe Data Visualization Tool
- WebDAV: Collaborative Software Engineering on the Web
- Orbit: A Next Generation Collaboration Environment

STN vol. 2 no. 3: Software Architecture

- COTS Software: Five Key Implications for the System Architect
- Software Architecture Representation
- The Profession of Software Architecture

DoD *Software Tech News* continued

STN vol. 2 no. 2: Risk Management

- Risk Management Map
- Risk Management: Finally Coming of Age
- Assessing Project Risk
- Software Acquisition Risk, A Perspective

STN vol. 2 no. 1: Rapid Application Development

- Rapid Application Development: A Brief Overview
- Rapid Prototyping: DACS Track at STC '98
- Importance of Software Prototyping
- Rapid Prototyping and Incremental Evolution
- Toward Disciplined Rapid Application Development
- Book Review: Pressman's *Software Engineering: A Practitioner's Approach*

STN vol. 1 no. 2: Software Measurement

- Earned Value (EV) and Automated Information Systems (AIS)
- Software Engineering Institute (SEI) Measurement Initiative
- Analyzing Quantitative Data Via the Web
- Conference Announcement: DACS at STC '98
- Software Technology Calendar of Events

Please send article submissions or any question regarding the *DoD Software Tech News* to:

Lon R. Dean - Editor, *DoD Software Tech News*
Telephone: (800) 214-7921
E-mail: ldean@dacs.dtic.mil

STN vol. 1 no. 1: DoD Software Engineering

- DACS Named the DoD Software Information Clearinghouse
- The Cohen Amendment Impacts Government IT Acquisitions
- Evolutionary Design of Complex Software Addresses Software Modernization Needs
- Book Review - A Must Read, *Rise & Resurrection of the American Programmer*
- Return on Investment (ROI) from Software Process Improvement (SPI) Now Available

DACS Newsletter

Before being designated as the DoD Software Information Clearinghouse and producing the *DoD Software Tech News*, the DACS had its own newsletter called simply, the *DACS Newsletter*. A full archive is available on the DACS Website in the *Software Tech News* section at www.dacs.dtic.mil/awareness/newsletters/listing.shtml.

DACS Newsletter: Volume XIV, Number 4

- State-Based Software Development Process
- Information Warfare - Part 2: DoD Organizational Structure
- MM/DD/00 - Solving the Year 2000 Dilemma
- Software Technology Conference (STC '96) Review
- Software Crisis or Hardware Success?
- Software Quality Week (QW '96), Summary and Analysis
- International Conference on Software Engineering (ICSE-18), Summary of Trends

Datasets and Databases

Software Engineering Datasets

Architecture Research Facility (ARF) Error Dataset - Data describes 117 error reports, software characteristics data on 253 modules, and project aggregates for the ARF developed at the Naval Research Laboratory in the late 1970s. Available on a PC or Mac floppy disk or in hardcopy form.

DACS Productivity Dataset - This dataset contains summary information from over 500 software projects, incorporating size data, error data, project duration, total effort, language data, and information on the usage of various software implementation technologies. Available on PC or Mac floppy disk.

NASA/AMES Error/Fault Dataset - Error/Fault data on 3,700 software problem reports collected on nine projects. Data was originally compiled by NASA/Ames Research Center in the late 1970s. Available on a PC or Mac floppy disk or in hardcopy form.

NASA/SEL Dataset - Data collected by the Software Engineering Laboratory (SEL), at NASA Goddard Flight Center, to measure the effectiveness of software development methodologies. This dataset contains over **50,000** records; the majority of the dataset is from component status reports and run analysis reports. The remainder of the dataset is project comment information, change reports, resource summary reports, and component summary reports. **Last updated in November 1997**. Available in hardcopy form or on CD-ROM.

Software Reliability Dataset - Failure data on 16 software systems collected during the phases of software test and operation during the 1970s. Suitable for validating software reliability models. Available on PC or Mac floppy disk or in hardcopy form.

Related Dataset Products

The DACS Data Compendium - A description of software experience data available from the DACS. This document includes type of data, number of records of each type, record formats, and instructions for obtaining data. 66 pages, April 1992 Available in hardcopy form.

DACS Databases

The DACS gathers software engineering experience data, as well as documented scientific and technical information. Scientific and Technical Information (STINFO) consists of documented information concerning the state-of-the-art and technology aspects of the computer software field. STINFO sources include technical reports, trade journal publications, proceedings of conferences and symposia, theses, texts, and product descriptions and specifications.

Software Life Cycle Experience Database (SLED) - There is a real need to collect productivity and failure data on the development, operation, and maintenance of software to support research in the software field. Data is needed which will allow researchers to isolate factors that contribute significantly to the cost, reliability, and quality of the software; to measure achieved reliability; to predict development and maintenance costs; and to track the progress of a software development project. The DACS reviews data sources, contacts the potential data source, and negotiates with the source to secure datasets for inclusion in the SLED. When possible, the DACS coordinates the automatic submission of updated data to the DACS by the source. Five datasets are currently contained within SLED.

Software Engineering Bibliographic Database (SEBD). The DACS Software Engineering Bibliographic Database provides a readily accessible source of comprehensive information in software engineering and channels the information to those able to use it in developing, maintaining, and managing software. The bibliographic collection is composed of texts, technical reports, theses, journal articles, proceedings, and other documents relating to software engineering, reliability, costs, and quality factors, maintainability and other appropriate topics. These documents are obtained from the Defense Technical Information Center (DTIC), from the National Technical Information Service (NTIS), from professional societies, and from publishers. The computerized database facilitates document retrieval by using keywords or any portion of a document citation. A custom search is performed by following the instructions provided. Access to the SEBD is available on CD ROM, or on-line at: www.dacs.dtic.mil/databases/sebd.shtml.

Software Engineering Tools

Goel-Okumoto Software Reliability Model

An automated version of the Goel-Okumoto Non-homogeneous Poisson Process Software Reliability Model which runs on an IBM-PC or compatible under MS-DOS 2.11 or higher. Features include the ability to find maximum likelihood estimators of the parameters defining the model by using either the Newton-Raphson or Muller's method; a goodness-of-fit test based on a Kolmogorov-Smirnov statistic; estimation of remaining faults, cumulative failures, and reliability; and estimation of the optimal release time based on certain cost criteria. This program is distributed on MS-DOS floppy disk.

Return-On-Investment (ROI) from Software Process Improvement (SPI) Spreadsheet

This Retrun-On-Investment calculation tool is meant to be used as an accompaniment to the State-of-the-Art Report: *A Business Case for Software Process Improvement (Revised), Measuring Return on Investment from Software Engineering and Management*.

The spreadsheet titled ROI.XLS, comes on either a Mac or PC diskette contains one spreadsheet created in Microsoft Excel®, Version 5.

This tool is accompanied by instructions that describes how to use the model to perform your own analysis. Instructions in Bold type pertain to those parts of the spreadsheet that you would change to incorporate your own estimates and experience data.

This spreadsheet can be used for:

- Software Size Estimation
- Software Cost Estimation
- Return-On-Investment (ROI) Estimation from Software Process Improvement (SPI)

The technical report *A Business Case for Software Process Improvement* may be viewed for free on the DACS Website at: www.dacs.dtic.mil/techs/tr.shtml or purchase from the DACS in hard copy.

Internet Services

Access to DACS products and services is available via the Internet at www.dacs.dtic.mil/. Finding the software engineering resources on the Internet in a timely, economical fashion has become easier. The DACS Home Page, Anonymous FTP site, and Broadcast Service provide easy access to the information you need! These tools permit ready access to DACS products and services and other software engineering resources - using the Internet tool with which you are most comfortable.

DACS Website

The DACS Website (www.dacs.dtic.mil) provides critical and timely information to the RDT&E and Information Technology Researcher, Program Manager, Acquisition Manager, Technologist and Software Developer on topics of interest to the DoD community.

The common theme of the DACS Website and all DACS Products and Services is the desire to provide the DACS user community information and expertise to improve personal productivity, improve organizational productivity, improve product quality, improve product reliability, reduce development and rework costs, and utilize best practices.

Internet Services continued

DACS Website continued

Through the DACS Web site, users are able to access:

- In excess of 250,000 citations and abstracts from trade journals. (Approximately 6,000 to 10,000 new citations are added each month.)
- Experts in Topics of Interest
- On-line State of the Art Reports, Critical Reviews, Technology Assessments and other Technical Reports
- Education and Training Information
- Information on Software Engineering and Technology Standards
- Information on the latest Commercial Off the Shelf (COTS) Software
- Links to over 2,000 Software Technology and DoD Related Sites
- Service Providers and Consultants
- Repositories of Technology Information

Topic Areas: The DACS Website addresses in excess of 22 current IT topics, such as Collaborative Techniques, Datamining, Software Measurement, Intranets, Client/ Server Software, Rapid Prototyping, Cleanroom Software Engineering, Programming Languages, and Object Oriented Technologies.

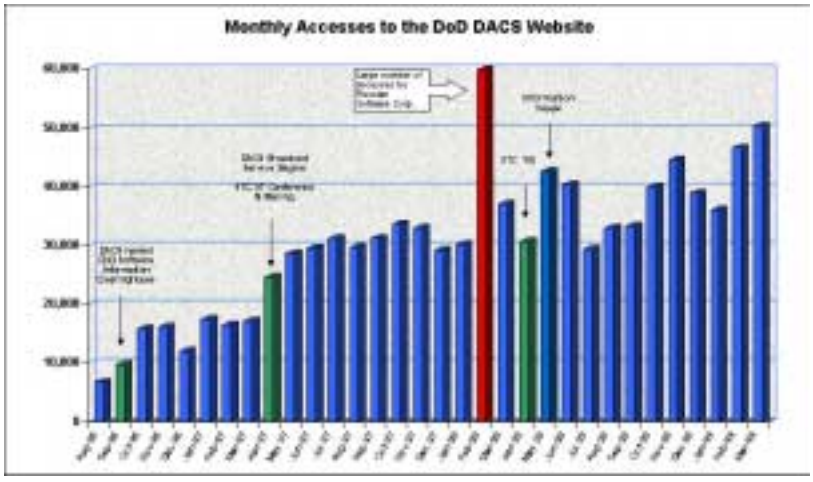
Anonymous FTP is an established method of transferring resources across the Internet. The DACS FTP Site provides users with additional facilities for locating and transferring Internet resources.

The **DACS Broadcast Service** sends an E-mail notice when new or significant changes in policy, standards, technology, and products appear on the DACS WWW site. Past broadcasts are archived at: www.dacs.dtic.mil/awareness/broadcasts/broadcasts_archive.shtml.

DACS Internet Services Addresses

DACS Home Page:	www.dacs.dtic.mil
Anonymous FTP:	ftp://ftp.dacs.dtic.mil/pub/
Broadcast Service Subscription:	www.dacs.dtic.mil/forms/broadcastform.shtml
DACS E-mail:	dacs@dtic.mil
DACS Webmaster Lon R. Dean:	webmaster@dacs.dtic.mil

Accesses to the DACS Website



As shown in this chart, the DACS has experienced a steady growth in accesses from 1996 to present. For example, there were 35% more accesses in March of 1999 than there were in March of 1998. We believe this increase in traffic is related the wide variety of resources available on the DACS Website.

The value of the DACS Website is further illustrated by the DACS receiving twelve awards and being featured in two major magazines. In the "Web Site of the Week" award from *Information Week Magazine* (May 11, 1998) description, Editor Rory J. Thompson writes of the DACS Website, "Finally, it's government at work for the people." *Infoworld Magazine* (April, 1998; Vol. 20, Issue 14, p. 57) called the DACS Website"... a comprehensive resource for software information" as they listed the site on their "Website Hotlist."

Note: The term "accesses" refers to the number of times web pages are viewed by visitors. Many sites report the inflated term "hits." A "hit" refers to each time a file is loaded from a web server. A "hit count" includes images, internal accesses, and files such as a navigation bar or image map. The number of "hits" the DACS Website receives is roughly eight times the number of "accesses" shown in this chart.

DACS Training

DACS Tutorials and Courses

There are currently five courses available through the DACS.

The courses are:

- Software Measurement Implementation and Practice
- Cleanroom Software Engineering
- System Engineering
- Authoring Quality World Wide Web Information Spaces
- Software Engineering for Program Managers

To attend any or these DACS courses or to have a course taught on-site, please contact us at:

Phone: (315) 334-4905, (800) 214-7921
Fax: (315) 334-4964
E-mail: dacs@dtic.mil
Mail: Data & Analysis Center for Software
P.O. Box 1400
Rome, NY 13441-1400

Software Measurement Implementation and Practice

Software Measurement Implementation and Practice will highlight the following areas: Measurement and Metrics; Measurement Paradigms; and the Experience Factory. This seminar will provide a basic understanding of measurement methods and problems, discuss the practical aspects of metric collection, give examples of metrics and management indicators, discuss measurement initiatives underway throughout the world, develop an understanding of measurement techniques that are utilized in practice, discuss new paradigms for measurement, and explain the concept of an Experience Factory. Attendees will acquire solid knowledge of what measurement is, how to implement it, and how to use it in software engineering practice. In addition, the seminar will provide attendees with new techniques for implementing measurement in a process-based reuse environment.

Instructor: Dr. Victor Basilli

Cleanroom Engineering

This course has four objectives:

1. To understand Cleanroom software engineering as a practical process for developing high reliability software with high productivity;
2. To understand the process of Cleanroom management through the incremental development life cycle;
3. To understand the technologies of Cleanroom design, specification, correctness verification, statistical testing, and reliability certification; and
4. To understand the integration of Cleanroom with the SEI Capability Maturity Model for Software.

This course puts forth three themes:

1. Risks can be managed or avoided through Incremental Development and Disciplined Engineering Processes;
2. Software Fitness for use can be scientifically certified; and
3. It is possible to routinely develop software that approaches zero failures in use.

Instructor: Mr. Richard C. Linger

Systems Engineering

This course will provide an understanding of System Engineering as it is practiced in the DoD and associated government agencies. It will cover basic concepts of System Engineering to include: definitions, standards used, new developments in the area, and related topics in areas such as Corporate Information Management (CIM) and Business Process Reengineering (BPR). Exercises will be used to enhance the training. Attendees can expect to acquire enough insight into this topic to be able to apply the concepts contained herein. Elements of System Engineering DoD Standards, Reliability/Maintainability/Availability, and Software Measurement will all be covered.

Instructor: Dr. Howard Eisner

DACS Training continued

DACS Courses continued

Authoring Quality World Wide Web Information Spaces

The format of this course includes a mix of lectures, on-line demonstrations, exercises, and participant discussions. Attendees will be provided with the DACS State-of-the-Art Report, *Electronic Publishing on the WWW: An Engineering Approach*, along with supplemental materials such as current tools information and additional references. This course will give participants practical guidance and trade-off experiences that they can apply immediately to developing and improving their own WWW information spaces.

Topics covered include:

- The Internet Publishing Environment
- Electronic Publishing Methodology
- Document Life Cycle and Attributes
- Designing Hypermedia Objects for Usability (Navigation and Performance), Portability, and Maintenance
- Hypertext Markup Language (HTML) Applications, Approaches and Tools
- Electronic Publishing Management Issues

Instructor: Ms. Elaine Fedchak

Software Engineering for Program Managers

This course will seek to improve the understanding between program management and software engineering. It will pinpoint the software issues that accompany complex software projects. The course will also identify: critical software measurements, processes for software risk management and software life cycle management requirements. Lists of additional materials provide an avenue for participants to explore each lecture in more detail, after the course.

Instructor: TBA

DACS Services

Technical Area Tasks (TATs)

The DACS performs Technical Area Tasks (TATs) for our customers to assist them in solving software engineering and software technology problems or in developing, instituting, or communicating improved methods. These special studies are geared toward complex efforts which extend beyond the performance scope of more routine software engineering products and services. The performance period of a TATs may run from several weeks to years in duration.

Initiating a DACS TAT

The process begins when a customer contacts the DoD DACS, the Contracting Officer's Technical Representative (COTR) or the Defense Technical Information Center (DTIC) with a request for DACS assistance. The customer is then referred to as a TAT sponsor. In concert with this sponsor, and in response to a Statement of Work (SOW) from the COTR, the DACS Team develops a brief technical and cost proposal.

After the proposal has been approved by the DACS Team, it is reviewed and approved by the DACS COTR, located at the Air Force Research Laboratory/ Information Directorate (AFRL/IF), and the DTIC Information Analysis Center (IAC) Program Office at Fort Belvoir, Virginia.

The approved proposal is then forwarded to the Procurement Contracting Officer, who negotiates the task and adds it to the DoD DACS contract.

Technical Area Tasks Payment

There are several methods that may be used to pay for DACS TATs services. If you are affiliated with a DoD service branch and the TAT is scoped at $25,000 or less, a TAT may be funded via a DD Form 1155, Blanket Purchase Order. Non-DoD activities may fund TATs costed under $25,000 by institutional check. Small-scope TATs do not require a contract modification and can be processed rapidly. For amounts above $25,000, a Military Interdepartmental Purchase Request (MIPR) is used by DoD activities to fund TATs. A Memorandum of Understanding or Agreement (MOU/A) or other financial arrangement is used for non-DoD activities and a contract modification is required. Typically, funds and funding authorizations for higher value TATs are

DACS Services continued

provided to the AFRL COTR along with the SOW. DD Form 1155 and/or institutional checks for $25,000 or less may be sent directly to the DACS upon agreement to the TAT scope, plan, and deliverables. Our goal is to begin performance on a TAT within four to six weeks after TAT scoping has been completed.

The DACS staff performs TATs for and provides consulting services to members of the defense community, other government activities, industry and academia for all aspects of software engineering and technology. Partners in performance of these TATs are:

DoD DACS Partners

ITT Industries, Systems Division: Internet; Information Collection, Analysis, & Dissemination; Software Measurement; Modeling & Simulation; Software O&M

University of Maryland, Fraunhofer Center: Premier Software University; Software Measurement; Quality Improvement

Modus Operandi: Workflow Technology; Process Automation; Object-Based Systems

Sterling Software: One of the top 15 Commercial Software Companies; System Management; Intelligence Applications

Software Engineering Technology: Cleanroom Software Engineering; Usage Modeling; Statistical Testing

SAIC: Safety Critical Software; Risk Analysis and Management

Bellcore: Network Integrity; Reliability; Testing; Software Process Improvement

MEI, Inc.: Software Rehosting; Systems Engineering

Capraro Technologies – Database Technology; User/Machine Interaction

Special DoD DACS Experts

Dr. Victor Basili – Goal/Question/Metric; Experience Factory

Dr. Martin Shooman – Software Reliability; Measurement Models

TAT coverage includes, but is not limited to, the following areas:

Technical Area Task Coverage

- Acquisition Support
- Algorithm Development
- Analysis & Test Technologies
- Artificial Neural Networks
- Conference Support
- Cost & Reliability Modeling
- Distributed/Parallel Processing
- Data Modeling & Simulation
- High Performance Computing
- Internet/Intranet Development
- Life Cycle Management
- Metrics Data Clearinghouse
- Metrics/Measurement Assessments
- Network Integrity Solutions
- Process/Product Model Studies
- Producibility Measures
- Rapid Prototyping
- Requirements Engineering
- Return on Investment Analysis
- Standards Development
- Software Engineering Training
- Software Image Processing
- Software Quality
- Software Reuse & Reengineering
- Software Test Automation
- Technology Transition
- Tools & Environments
- Website Management
- Workflow Automation
- Year 2000 Problem Solutions

DACS Services continued

Technical Inquiries

Finding the answer to your Software Technology questions is only a phone call or E-mail away!

Have you ever wanted to hire a consultant to answer your Software Technology questions but felt you couldn't afford it or the question was too small in scope for a consultant? The DACS has the perfect solution, the DACS Technical Inquiry Service. Think of the potential cost savings that having a Software Technology consultant from the DACS could bring you!

The DACS staff helps government, industry, and academic personnel solve specific problems by providing; the answer directly, contact information for technology experts, information regarding a particular Software Technology, and searching for other potential information resources.

The DACS Technical Inquiry Service will provide an Analyst as a consultant free of charge for up to eight hours of research time.

Any inquiry requiring more than eight hours effort would need to be funded through a cost-recovery vehicle known as a Technical Area Task (TAT). Information regarding TATs is available on page 10 of this catalog.

Find out what a Technical Inquiry can do for you! Here's how to send an inquiry to the DACS:

Telephone: (315) 334–4905
(800) 214-7921
Fax: (315) 334–4964
E-mail: cust-liasn@dacs.dtic.mil
Technical Inquiry Form:
www.dacs.dtic.mil/forms/inquiry.html

Bibliographic Services

This section is designed to acquaint the patrons of the DACS with the procedures required to obtain a bibliographic search of the DACS Software Engineering Bibliographic Database (SEBD), which is described on page 6 of this catalog.

Bibliographic Inquiries

The Bibliographic Inquiries service assists the user in quickly finding the availability of a particular document that is required for an immediate task. These inquiries are handled by phone or E-mail which makes the response time to the request prompt. When a request is communicated to the DACS, it is interpreted by an analyst, a query is then formulated against the bibliographic data file, and an annotated bibliography is produced. The annotated bibliography is verified by the analyst and is then sent to the user.

What is a Bibliographic Search?

A DACS Bibliographic Search is a request for specific information on the software engineering literature contained in the DACS Software Engineering Database (SEBD). The request can pertain to a number of topics including subject, title, author, corporate author, sponsoring agency, contract or grant number, or title of publication. The bibliographic search contains a listing of cited documents in the form of a citation and an abstract. The citation includes: title, author, corporate affiliation, availability, order number, sponsoring agency, and contract or grant number of the document. The abstract includes a synopsis of the document. A list of keywords pertaining to the document is also included. The citations are followed by a keyword-in-context listing for reference. The bibliographic search service is designed to meet special needs and to provide the user with leads to relevant information on a specific topic.

How to Use the Bibliographic Services

The following steps will ensure the best use of this service:

1) The request should be as specific as possible in regards to the subject matter to be covered. Areas closely related to the primary topic, but in which the user has no direct interest, should also be identified. The depth of coverage can be specified along with the desired time range coverage. The cost is $40.

2) Making the request is accomplished with a letter, telephone call, an E-mail or a visit to the DACS.

3) Bibliographic searches must be prepaid with the following conditions and exceptions. Checks must be drawn on a U.S. bank and made payable to ITT Industries,. DoD customers may use Blanket Purchase Order DD Form 1155.

For simple keyword, author or title searches, the SEBD is available on-line at: www.dacs.dtic.mil/databases/sebd.shtml

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PRODUCT NAME	PRICE	FORMAT	QUANTITY ORDERED	ITEM TOTAL
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